UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 12, 1995

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Robert Staab
Corporate Environmental Manager
Circle K Stores Inc.
P.O. Box 52084
Phoenix, Arizona 85072-2084

Dear Mr. Staab:

This is in response to your letter of September 18, 1995 (enclosed), in which you request clarification of certain reporting requirements under the federal underground storage tank (UST) regulations. Specifically, at issue is the interpretation of EPA's requirement for reporting that a release may have occurred based on inventory control results. 40 CFR §280.50 generally requires reporting of monitoring results from a release detection method that indicate that a release may have occurred unless: "in the case of inventory control, a second month of data does not confirm the initial result. " 40 CFR §280.50(c) (2) (emphasis added).

EPA interprets the language "confirm the initial result" to mean that the difference between the physical and calculated inventories is greater in magnitude than the regulatory standard of 1% of throughput plus 130 gallons for a second month in a row, no matter whether the direction -- short or over -- is the same as the first month .

Thus the variance combinations of short-short, over-ov~er, short-over, and over-short must all be reported to the implementing agency within 24 hours, or another~time period specified by the implementing agency. Of course, a report is not required if immediate accounting corrections are made. Such corrections should be limited to recalculating and the reading of tank charts, and should not include revising raw data like stick readings, totalizer readings, or delivery volumes.

Since reporting suspected releases leads to release investigation, we recognize that a tightness test or a site check may be overkill in some cases. However, §280.52 provides flexibility by allowing investigation by "another procedure

approved by the implementing agency." By copy of this letter, EPA recommends that each implementing agency allow procedures as it deems appropriate in this case.

We believe that EPA's position is well-founded, reasonable, and furthers the goal of protecting human health and the environment without unduly burdening the regulated community. Revision of our guidance documents, which are consistent with this clarification, is therefore not necessary at this time. Please see the enclosed discussion paper, which provides background information and more detailed analysis.

Thank you for bringing your concerns to us. I apologize that EPA staff provided Mr. Esperson with a response counter to the above in an earlier telephone conversation. If you have any questions or comments on this issue, please contact David Wiley, at (703)308-8877.

Sincerely,

/s/

Lisa C. Lund, Acting Director
Office of Underground Storage Tanks

Enclosures:
Sept. 18, 1995 Robert Staab letter
Discussion paper

cc: Stephen Crimaudo, ASTSWMO
Larry Brill, Region 1
Stanley Siegel, Region 2
Maria Vickers, Region 3
Mary Kay Lynch, Region 4
Willie Harris, Region 5
Willie Kelley, Region 6
Bill Pedicino, Region 7
Stephen Tuber, Region 8
Laura Yoshii, Region 9
Lauris Davies, Region 10
Katherine Nam, OGC
Joan Olmstead, OECA
Shonee Clark :(Compendium)
OUST Management Team

G: \share\OUST\TechIsue\circ1e_K.wpd

Discussion: Reporting Inventory Control Results

Background

The inventory control method of UST system leak detection involves comparing physical, "stick" liquid product inventories and calculated, "book" inventories. In common usage, a "short" results when physical inventory minus book inventory yields a negative number. Conversely, an "over" occurs when this number is positive.

EPA regulations [1] established a monthly standard maximum discrepancy between stick and book inventories of 1.0 percent of flow-through plus 130 gallons. In addition, the UST regulations [2] state that a report must be made to the implementing agency if "monitoring results from a release detection method .... indicate a release may have occurred unless .... [i]n the case of inventory control, a second month of data does not confirm the initial result" (emphasis added).

Circle K asserts that the language "confirm the initial result" means that there are either two consecutive "shorts" greater in magnitude than the. standard or two consecutive "overs" greater in magnitude than the standard. Circle K notes, however, that EPA's booklet Doing ***Inventory Control Right*** [3] ***(DICR)*** and multiple regulatory agencies interpret this language to mean that two consecutive variances are greater in magnitude than the standard, no matter whether the variances are short or over.

Although reporting suspected releases leads to release investigation under the regulations, the regulations allow investigation by "another procedure approved by the implementing agency" [4] in addition to the listed procedures of system tests or site checks.

Clarification

EPA interprets the language "confirm the initial result" to mean that the variance is greater in magnitude than the regulatory standard for a second month in a row, no matter whether the direction -- short or over -- is the same as the first month. In addition, EPA recommends that each implementing agency allow alternative procedures as it deems appropriate to satisfy the release investigation requirements.

Rationale

There are multiple reasons that EPA requires that a report be made regardless of whether variances are over or short.

The requirement is practical. An over or short monthly result indicates a leak or other material loss, a gain in stored material, or errors in the method such that the status of the UST system relative to the standard cannot be determined. The cases of concern to Circle K, that of an over-short combination and a short-over combination, indicate that inventory control, as performed, can be masking actual leaks and therefore cannot detect a leak at the standard flow rate, as required. This is true even if a mere accounting error is the reason for the variances. On occasion, these combinations also may be caused by an incorrect tank chart or a tank with a hole which is affected by fluctuating ground water levels. Aside from leak detection, such variances are bad for business, since the operator cannot detect short deliveries or thefts if data collection and reconciliation are not done properly. Thus, both overs and shorts are of concern, and any combination pair should be reported.

The clarification above is consistent with the regulatory record. Nothing in the UST technical regulations, in the preamble to the final rule [5], or in the public comments and responses to the proposed rule [6] is contrary to this clarification.

Furthermore, this clarification is consistent with previous guidance. Multiple other EPA documents [7,8] in addition to ***DICR*** explicitly agree with the clarification. Moreover, this interpretation is not strictly a view of regulatory agencies only. ***DICR*** was developed in cooperation with seven leading industry associations, and the American Petroleum Institute's (API's) recommended practice [9] interprets the issue in the same way as EPA.

In addition, the leak detection requirements are flexible and are not onerous. In setting the final UST technical standards, EPA chose an inventory control standard that was less stringent than it initially proposed, and less stringent than the one still found in API's recommended practice. EPA chose a less stringent requirement because it found that these other standards, as implemented in the real world, yielded a rate of false alarms that was unacceptably high. Thus, EPA finalized inventory control requirements which allow operators to, with some care, detect large leaks and other inventory problems without a large number of false alarms, essentially free of charge.. Those who, for whatever reason cannot perform inventory control sufficiently can choose from dozens of other leak detection systems available.

Likewise, the reporting and investigation requirements are not unduly burdensome. In the final rule, EPA relaxed the proposed reporting requirements for inventory control, by allowing the second month of data to be considered before reporting. Reporting in itself is not costly or time-consuming. State and EPA commenters did not feel that the reports are burdensome, either for agencies

or for operators. The subsequent investigation need not be burdensome, either. The correction of calculations may be all that is required.

State agency officials who EPA contacted agree with the above interpretation, and generally support maintenance of the requirement. They cite a need to know all repeated variances, and some note that inventory control results which are not reported are a recurrent and serious problem, because real releases are not detected until their impacts are much worse than if variance results had been heeded.

Conclusion

In sum, the Agency believes the above clarification is not unduly burdensome and is consistent with good and practical UST management, with the regulatory record, with public and private sector guidance documents, and with protection of human health and the environment.

Notes

1. 40 CFR §280.43(a)

2. 40 CFR §280.50(c)

3. EPA, ***Doing Inventory Control Right: For Underground storage Tanks,*** Nov 1993, pp 12, Monthly Inventory Record.

4. 40 CFR §280.52

5. 53 ***Federal Register*** 37082-37194.

6. EPA, OUST, "Comment Summaries and Responses Documents for the Final Technical Standards and the State Program Approval Regulations," 1988, p 17-8.

7. EPA, ***Detecting Leaks: Successful Methods Step-by-Step;*** Nov. 1989, pp 29-30.

8. EPA, OUST, ***Common Questions on Leak Detection,*** Feb. 1990, p 15.

9. American Petroleum Institute Recommended Practice 1621, ***Bulk Liquid Stock Control At Retail Outlets,*** May 1993, p 1.